

THOUGHTS ON THE DEFT ASSIGNMENT

Actions we ought to consider and thoughts about them:

1. Delta Habitat- the subcommittees 7/16 draft is a great start and does much of what we need. I'll be passing on a few thoughts to the committee. Obviously considerable uncertainty as to benefits will remain. I think we should just refer the product to the species committees for evaluation and not make any attempt to have the large group estimate benefits. Note, however, that the existing estimates of benefits are for full implementation after 30 years. While the more complete prescription may well increase the estimate of 30 year benefits, the benefits during the next 7 years would be less.
2. The more esoteric aspects of the ERP- The ERP addresses other elements of habitat restoration in the Delta and Suisun Bay which are considerable more esoteric than wetland habitat, as Terry Mansfield pointed out Thursday. These include such things as sediment, water clarity and temperature. While these are important considerations for ecosystem restoration, I do not think we have the knowledge to develop any in-Delta actions, much less estimate their benefits.
3. Exotics- The ERP has some proposed actions which should be implemented, but we're stuck with the effects of the major changes which have occurred. Those changes may prevent "restoration" of some species. We may be able to make some useful judgements of the probability of that for specific species, but such judgements will be very general and uncertain. There are not any additional actions to propose in our time frame to produce improved descriptions of alternatives.
4. Water Quality- Are any proposals reasonable in our time frame? The water quality folks have done a lot of work to produce the present draft plan, but it contains few action items likely to cause changes during the next 7 years (see the 7/8 preferred alternative draft) sufficient to be detectable on the scale of impacts we are judging. Even if there were substantial specific actions proposed for implementation, we probability couldn't estimate benefits, given our inability to estimate current impacts. Is it time to say this rather than stringing folks out as we have?
5. Other parts of the common programs- Are there other parts of the common programs, such as screening local diversions, where significant additional actions are feasible?
6. Water Project Related Actions- Other than the above possibilities, potential available actions concern water project effects. Such actions involve either structural changes or operational changes.
 - a. Structural changes: We appear to have four alternatives before us now, Alternatives 1 and 2 as described by CALFED, Alternative 2 modified to include using much of the water diverted at Hood to create an hydraulic barrier at the head of Georgiana Slough, and a canal from Clifton Court to the San Joaquin River at Ringe Tract. In addition, analytical work is proceeding to identify a specific plan for fish passage over the Hood screens and pumping plant in Alternative 2.

- As I understand them, CALFED operations studies indicate essential equal water export capabilities for Alternatives 1 and 2. If that is so, why take the additional risks estimated to exist for Alternative 2 by each of the species teams? We need to determine whether water supply interests really believe that conclusion, which includes the closure of the Delta Cross Channel from November? through June to protect salmon.
- If we do not drop Alternative 2, we need to complete the evaluation of fish passage and have the species teams judge how that would modify their analysis of Alternative 2.
- For Alternative 2 with the hydraulic barrier in Georgiana Slough, have questions of engineering feasibility been resolved satisfactorily for a programmatic EIR? The species teams should judge its benefits.
- For the south Delta canal, several questions need to be addressed to judge whether it is worth considering. One is whether there would be a significant difference from the present diversions in the numbers of fish occurring at the intake. A particle analysis for particles injected at the junction of the San Joaquin and Mokelumne rivers would probably be the most meaningful analysis. Since we do not have a model configuration for the south Delta canal, we can not do such an analysis and meet our schedule. Could the modelers offer an opinion as to the likely results? The operations results distributed by Bruce with his proposal indicate average monthly reverse flows at Ringe Tract up to about 3,000 cfs with the existing diversion location. Does that indicate that with the present system a substantial portion of the water being exported passes what would be the location of the south Delta canal intake? If so would that tend to support an hypothesis that there wouldn't be much difference in the occurrence of fish at the two locations.? A second question is whether a salvage system would need to be included with the screen on the intake. Bruce's transmittal indicates that net flows are on the order of one third of the tidal flow at the south canal intake. What does that indicate about the need for a salvage system? Are there other questions which would help the species teams judge benefits if we decide to forward the alternative to them?
- We have some unresolved issues related to new fish screens at the existing south Delta intakes. IDT proposed and CALFED Policy Team accepted a recommendation for a consolidated new screen at the northern corner of Clifton Court Forebay. The Fish Facility Technical Team has made recommendations for proceeding with staged facilities. I am not clear on their meaning. There was some support in the committee for the Bureau's proceeding with a test facility for Tracy larger than they initially proposed, but most of the group seemed to favor proceeding towards a single facility at Clifton Court. Is that an accurate perception? If we stage construction of a new screen at Clifton Court is there any way to hook the Bureau up to the new system before the full 15,000 cfs facility is completed? If not is a single facility feasible, given that we cannot build more than about 5,000 cfs now to preclude foreclosing contingent selection of Alternative 3? In that regard is replacing Tracy with a state-of-the-art screen and building a 5,000 cfs module at the north end of Clifton Court sufficient to preclude a dual system due to excess sunk costs?

- Are there any other structural changes in the Delta which we should be considering?

b) Operational Conditions- Two principal strategies seem most useful: increasing restrictions on diversions and increasing flows both for intrinsic benefits of flow and to help move selected species out of the influence of the pumps. The minutes of our 7/9 meeting list questions about relationships which would be useful in identifying potential operational changes. Are there any other such questions we should be asking? At our July 16 meeting, we got useful input re possible additional curtailment in April, additional July flows, and flows for improved survival of striped bass eggs and larvae in the Sacramento River. Vacations and competing workloads make it problematical when the additional results will be available. It looks like not much will be available before the July 30 Management Team meeting. Are there other operating criteria which we can identify for evaluation before those questions are answered?

Any new criterion will presumably have a water cost. How will we deal with that issue consistent with CALFED expectations? Options include use of ERP flows and sharing new water made available from all sources I. e. water use efficiency, transfers, groundwater storage and surface storage. Since there is a lag time before most new supplies could be available, should we propose phasing in operating criteria over time, either explicitly tied to specific projects or just on some schedule deemed reasonable in relation to time lines for supply augmentations? If not how are we going to identify "through Delta actions" to be implemented after Stage 1?

The results of the analysis given us on 7/16 illustrate the consequences of doubling the duration of the 1,500 export limit to include all of April and May and indicate the issues we will likely face with any operational measure. We need to refer the analysis to the species teams for evaluation, but they will surely judge the April and May changes to be useful for several species, but even fairly substantial improvements in one month probably will not improve the overall summaries of impacts that much. (For example, I do not think we increased benefits for salmon in any month by more than 3 units, while it took about 10 units to justify an increase of 1 unit in the summary matrix shown to the policy folks.) Furthermore, the teams will need to consider detriments associated with the resulting increases in exports and decreased flows from July through January which accompany the extended April-May curtailment. The suggestion is that the operational change may be acceptable if accompanied by a decision to eliminate the Corps constraints on Banks pumping in other months, because that would allow a net increase in water delivery capability. That may be true, but it would mean that a large project (a 4,000+ cfs increase in pumping capacity) was utilized for a one month gain in export limits plus some water supply benefits. In other words, the costs of operational improvements will be high and generally accompanied by detriments if they include shifting exports to other times.